

## **Remarks**

The above Amendments and these Remarks are in reply to the Office Action mailed October 19, 2006. A Petition for Extension of Time to Respond extending the time to respond up to and including February 19, 2007 is submitted herewith, together with the appropriate fee.

### **A. Claim Objection**

Claim 3 is objected to because of an informality based on a grammatical error. Claim 3 has been amended to correct the grammatical error. Accordingly, Applicants respectfully request that the objection be withdrawn.

### **B. Rejections under 35 U.S.C. §101**

Claims 1-4 and 7 stand rejected under 35 U.S.C. §101 as being drawn to non-statutory subject matter. Claim 7 is hereby canceled, rendering the rejection of this claim moot. Claims 1-2 are rejected under 35 U.S.C. §101 as “directed to a medical decision support system comprising a processor, memory device (i.e. products), two inputs, and a program comprising an algorithm (i.e. process) in the same claim. Therefore, the instant claims are not statutory as they are directed to neither a ‘process’ nor a ‘machine...’ (p. 3, 1<sup>st</sup> para.)

Claim 1 has been amended to recite “devices” and a “processor,” proper components of a machine. Claims 1 and 2 therefore are now directed to a machine and are statutory, overcoming the Examiner’s rejections.

Claims 3-4 are rejected under 35 U.S.C. §101 as providing no practical application or tangible result communicated to a user such that it is useful to one skilled in the art.

Claim 3 has been amended to recite “to produce a prognosis of an outcome of a disease or its treatment.” Further, recitation of “a method for evaluating a medical decision” constitutes a practical application. Claims 3-4 now recite a practical application, overcoming the Examiner’s rejection.

Accordingly, Applicants respectfully request that the rejections under 35 U.S.C. §101 be withdrawn.

### **C. Rejections under 35 U.S.C. §112, second paragraph**

Claims 1-7 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Claim 7 is hereby canceled, rendering the rejection of this claim moot.

Claim 1 is rejected under 35 U.S.C. §112, second paragraph for being unclear as to: (1) whether the claimed system is a product or a process, (2) whether a classifier/predictor module is intended to be for

classification, prediction, or both, (3) what physical limitation is meant by “said input for acquiring... data,” (4) in what way said input is associated with said modules, and (5) what is claimed by a “combination algorithm.”

Claim 1 has been amended to recite: (1) “a medical decision support system” comprising “devices” and a “processor,” proper components of a product; (2) “a first classifier/predictor module to classify said gene expression data” and “a second classifier/predictor module to classify said clinical information”; (3) “a first input device” and “a second input device”; (4) “said first input device operably connected to a first classifier/predictor module” and “said second input device operably connected to a second classifier/predictor module”; and (5) “said memory device having software to combine...” Claim 1 therefore is now definite as it particularly points out and distinctly claims the subject matter which applicants regard as the invention. Thus Applicants believe that the amendment overcomes the Examiner’s rejection.

Claim 3 is rejected under 35 U.S.C. §112, second paragraph for being unclear as to: (1) whether “using a first classifier/predictor module” denotes an intended use, and if so, what method or process; (2) in what way “classifying... information... into a second classifier/predictor module” is carried out.

Claim 3 has been amended to recite: (1) “using a first classifier/predictor module to classify gene expression information”; and (2) “using a second classifier/predictor module to classify clinical information.” Claim 3 therefore is now definite as it particularly points out and distinctly claims the subject matter which applicants regard as the invention. Thus Applicants believe that the amendment overcomes the Examiner’s rejection.

Claim 4 is rejected under 35 U.S.C. §112, second paragraph for being indefinite in its recitation of “EFuNN process.”

Claim 4 has been amended to recite “an evolving fuzzy neural network (EFuNN) process.” Claim 4 therefore is now definite as it particularly points out and distinctly claims the subject matter which applicants regard as the invention. Thus Applicants believe that the amendment overcomes the Examiner’s rejection.

Although reference is made in the Office Action to a rejection of Claim 5 under 35 U.S.C. §112, no grounds for such a rejection are set forth in the Office Action. Applicants respectfully request that grounds for any such rejection be explained so that Applicants may have an opportunity to respond.

Accordingly, Applicants respectfully request that the rejections under 35 U.S.C. §112, second paragraph be withdrawn.

#### **D. Rejections under 35 U.S.C. §102**

Claims 1-3 and 5-7 stand rejected under 35 U.S.C. §102(b) as anticipated by Barry et al. (U.S. Patent No. 6,081,786; hereafter, "Barry"). Claims 1-7 stand rejected under 35 U.S.C. §102(b) as anticipated by Slonim et al. Claim 7 is hereby canceled, rendering the rejections of this claim moot.

Applicants respectfully note that, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131.

##### **1. Barry**

Barry discloses systems, methods and computer programs for guiding selection of a therapeutic treatment regimen for a patient with a known disease such as HIV infection. Barry further discloses generating therapeutic treatment regimens by providing patient information to a computing device comprising a first knowledge base comprising a plurality of different treatment regimens, a second knowledge base comprising a plurality of expert rules for selecting a treatment regimen, and a third knowledge base comprising advisory information useful for patient treatment using the different treatment regimens.

##### **a. Claim 1**

Claim 1 has been amended to recite "software to combine said classified gene expression data... to produce a prognosis of an outcome of a disease or its treatment." By contrast, Barry does not disclose, as recited in amended Claim 1, "software to combine said classified gene expression data... to produce a prognosis of an outcome of a disease or its treatment."

##### **b. Claim 3**

Claim 3 has been amended to recite "combining said classified gene expression information... to produce a prognosis of an outcome of a disease or its treatment." By contrast, Barry does not disclose, as recited in amended Claim 3, "combining said classified gene expression information... to produce a prognosis of an outcome of a disease or its treatment."

##### **c. Claim 5**

Claim 5 has been amended to recite "software to combine said classified gene expression information... to produce a prognosis of an outcome of a disease or its treatment." By contrast, Barry does not disclose, as recited in amended Claim 5, "software to combine said classified gene expression information... to produce a prognosis of an outcome of a disease or its treatment."

## **2. Slonim**

Slonim discloses techniques for classification of patient samples by computational analysis of gene expression data, including class discovery and class prediction. Class discovery is disclosed as meaning dividing samples into reproducible classes that have similar behavior or properties, while class prediction refers to placing new samples into already known classes. A method is described for performing class prediction and it is applied to classifying bone marrow and blood samples from acute leukemia patients.

### **a. Claim 1**

Claim 1 has been amended to recite “software to combine... said classified clinical information to produce a prognosis of an outcome of a disease or its treatment.” By contrast, Slonim does not disclose, as recited in amended Claim 1, “software to combine... said classified clinical information to produce a prognosis of an outcome of a disease or its treatment.”

### **b. Claim 3**

Claim 3 has been amended to recite “combining...said classified clinical information to produce a prognosis of the outcome of a disease or its treatment.” Slonim does not disclose, as recited in amended Claim 3, “combining.. said classified clinical information to produce a prognosis of an outcome of a disease or its treatment.”

### **c. Claim 5**

Claim 5 has been amended to recite “software to combine... said classified clinical information into a prognosis of an outcome of a disease or its treatment.” Slonim does not disclose, as recited in amended Claim 5, “software to combine... said classified clinical information into a prognosis of an outcome of a disease or its treatment.”

## **3. Cited Art Does Not Anticipate Applicants’ Amended Claims**

Applicants respectfully submit that the cited art does not anticipate Applicants’ amended claims. Accordingly, Applicants respectfully request that the rejections under 35 U.S.C. §102 be withdrawn.

Applicants have added new claims 8-17.

## E. Conclusion

Based on the amendments and arguments presented, Applicant respectfully submits that none of the references cited anticipate Applicant's claims, and that all of the pending claims are allowable. Applicant respectfully requests the Examiner to reconsider the rejections, to find the claims allowable, and to provide a Notice of Allowability.

The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

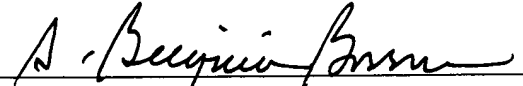
Enclosed is a PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. § 1.136 for extending the time to respond up to and including February 19, 2007.

Please note that the correspondence address for this matter has changed. The new correspondence address is:

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Respectfully submitted,

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